

REMARKS

Claim 1 is drawn to a wall covering assembly that includes a base material, a ceramic coating and a ceramic interlayer between the base material and the ceramic layer. It is an explicit requirement to the claims that:

... at least one of the ceramic coating and the ceramic interlayer comprise an inorganic-organic silicon network including an organic component covalently bonded between the Si atoms and wherein the organic component has a hydroxyl group and an amine group.

The cited art does not describe a silicon network having the structure of the present claims

Nowhere in the November 24, 2010 Office Action does the Office explain how the cited art discloses or suggests the above-quoted feature of the present claims. In the absence of some explanation how the prior art discloses or suggests all of the features recited in the claims, the Office cannot have set forth a *prima facie* case of obviousness.

On page 5, lines 5-9 of the November 24 Office Action the Office appears to imply that the Armbrust reference (U.S. 6,828,381) discloses that it is preferable to use a mixture of AMEO and GLYEO silanes. The citations provided by the Office do not describe any particular AMEO/GLYEO combination. Instead, at best, the cited disclosure generically describes combinations of silanes and/or combinations of silanes with other materials. Applicants submit the rejection is likewise deficient to the extent that the Office implies that the Armbrust patent describes a mixture of silanes that inherently provides the above-quoted feature of the present claims.

Further in support of the rejection the Office asserts that the Penth (U.S. 6,309,454) reference discloses that an organic bonding agent may be used in certain ceramic layers (see the paragraph bridging pages 3 and 4 of the November 24 Office Action). Penth does not describe the organic bonding agent other than by reference to prior art U.S. Patent Nos.

5,376,442 and 5,605,628 (see column 1, lines 58-63 of Penth). Inspection of these patents shows that the “bonding agent” is a polymer material. Penth describes bonding agent compositions which contain polymer or copolymer materials and, importantly, which have significant disadvantages:

This bonding agent must be removed again during stabilization, which can lead to irregularities in the ceramic material surface and/structure.

See column 1, lines 60-63 of Penth.

The bonding agent described in Penth must be different from the organic component of the present claims. Where the bonding agent of Penth is a material that is removed to form a usable ceramic layer, the organic component of the present claims is “covalently bonded between the Si atoms”. Applicants submit that it is readily evident that the bonding agent described in Penth must be different from the organic component of the present claims and is in no way suggestive of a material which is covalently bonded to atoms within a ceramic layer.

Applicants thus submit that the rejection should further be withdrawn to the extent the Office relies on Penth’s description of an organic bonding agent as evidence of obviousness.

Claim 26 is further patentable over the cited art

Claim 26, added in the Amendment filed on September 2, 2010, is further patentable over the cited art. Claim 26 requires that both the ceramic coating and the ceramic interlayer include an inorganic/organic silicon network in which an organic component is covalently bonded between two Si atoms. The bonding agent described in Penth is used only in an outer green layer and not in a layer which corresponds to the ceramic interlayer of the present claims.

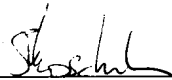
Claim 26 is therefore further patentable in view of the cited art's failure to describe an embodiment in which layers corresponding to both a ceramic interlayer and ceramic layer of the present claims include a covalently bonded organic component such as that of Claim 26.

Applicants thus submit that Claim 26 is further patentable over the art of record and respectfully request withdrawal of the rejection.

For the reasons discussed above in detail, Applicants request withdrawal of the rejection and the allowance of all now-pending claims.

Respectfully submitted,

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